

# **Do You Really Need That Pesticide?**

By Catherine S. Tunis<sup>1</sup>

For a suburban community, Takoma Park has a very diverse ecosystem. I have seen endangered newts, a small frog, turtles, bats, a variety of birds, and many beneficial insects like lady bugs and preying mantis in my yard and in the area immediately around my house. However, like any area, Takoma Park also has its share of insect pests, for example, ants, fleas, gypsy moth, and scale insects. How can we reduce the pests without harming the environment?

The advertisements would have you believe that the best way that to deal with any insect is to apply pesticides liberally. But toxic chemicals will not just kill the intended target, they can also harm other species as well—beneficial insects, birds, frogs, pets, and people. Pesticides can cause allergic reactions, nervous system disorders, genetic mutations, and cancer. Fetuses, children, and the elderly are especially vulnerable. Pets are often highly exposed to pesticides.

It is best to control the pests by other means and, if pesticides are really necessary, to use the least toxic chemical, in the least amount, and targeted carefully to minimize the environmental effects. If you use any pesticide, please be careful to keep children and pets away and dispose of pesticides properly, preferably by bringing them to a Montgomery County hazardous waste drop-off event.

Here are some alternatives to pesticides:

- ☞ Physical barriers: sealing the small openings in your house can help to keep pests out. For example, caulk around the holes where pipes and phone and cable wires enter your house. Also caulk any cracks around windows and doors. Be sure your screens are in good repair and fit the windows and doors properly. Consider installing a piece of screen over your exhaust fans.
- ☞ Physical traps: Gypsy moth caterpillars can be reduced very effectively by picking them off trees. In May and June, the caterpillars will look for a shady spot to sleep during the day. Provide that with strips of heavy cloth hung around the trunk. Then pick the caterpillars off the tree and drown them in soapy water.
- ☞ Soapy water is very effective in eliminating pests since bugs will drown in it. Soapy water can be used to wash off scale insects and other pests on houseplants and some other ornamentals. It can be sprayed on the soil of houseplants that are breeding gnats. A tray of soapy water under a night light can help eliminate light flea infestations. The fleas will be attracted to the night light, fall into the soapy water and drown. Obviously, you must keep kids and pets out of the soapy water.
- ☞ Provide an environment that bugs don't like. For example, spider mites hate humidity. You can eliminate them from your houseplants by misting the plants frequently with

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<sup>1</sup>The author is Chair of the Takoma Park Committee on the Environment

water. Ants are repelled by lemon juice. Don't plant the plants that you know the bugs in your yard love—try other varieties. Completely clean kitchen surfaces to avoid attracting insects. Also be sure there are no plumbing leaks under your sink—roaches like food, but they also need water. Remove any standing water from your yard to prevent mosquito breeding. Move firewood piles away from the house to discourage termite infestations.

- ☞ Use nonchemical alternatives: slugs can be reduced or eliminated with diatomaceous earth. This is a powder made of ground diatoms—animals with small shells. When slugs, especially young slugs, crawl on it their bodies are cut by the shells and they die. Sprinkle diatomaceous earth on wet ornamental plants early in the season and after rains. Wear gloves and a dust mask while applying to avoid ingesting diatomaceous earth. Some people leave a saucer with beer in the dirt, hoping slugs will fall in it and drown. I have found that larger slugs just drink the beer. They'll eat fewer plants while drinking beer but they'll come back for more beer. I have found that the diatomaceous earth is more effective in reducing slug damage.
- ☞ Vacuum larger pest bugs in the house. If you have a hose type vacuum, put an old stocking in the tube and secure it with the hose nozzle. After vacuuming the bugs, remove the stocking, tie the end and toss. (Beneficial insects can be caught with a glass and a piece of cardboard and released outside.)
- ☞ Borax can be used to kill insects. Put some in a crack behind cabinets, under shelf paper, or in cabinets in a paper cup that has been cut to about ½ inch. Keep children and pets away from the borax.
- ☞ Put up a bat house. One bat can eat many mosquitos in one night and it kills fewer beneficial insects than bug zappers.

Try the alternatives above before resorting to chemicals. If you must use chemical pesticides, use pesticides sparingly, use the least toxic chemical, and be very careful with the timing and placement of any chemicals. If you hire a pesticides professional, ask her/him to follow these principles.

- ☞ Use the least persistent chemicals. For example, Malathion will break down in sunlight in a few days while diazinon will remain in the environment much longer.
- ☞ Never use very toxic and persistent chemicals such as chlordane. If you have these chemicals, please bring them to the next Montgomery County hazardous waste drop-off.
- ☞ Never use chemicals outdoors when rain is predicted.
- ☞ Use the least amount of chemical needed to do the job. More is not better. And limit the area where you apply chemicals. If insects are entering your house in one place, only treat that one place, not the entire house.

- ☞ Be sure the chemical you use is recommended for the pest you have. Otherwise it may do damage to the environment without eliminating the pest.
- ☞ When possible, use a chemical that is confined to a container. For example, use ant buttons or termite bait stations rather than a spray.
- ☞ If you have a vacuum with a disposable paper bag, you can greatly reduce flea infestations by vacuuming thoroughly then spraying flea killer directly into the bag rather than spraying your pet or your home. This will kill the fleas in the bag and also kill any eggs that hatch. Vacuum frequently. Usually one vacuum bag spraying will last for several vacuumings.
- ☞ For carpenter bees, spray directly into the bee's hole at dusk when the bee is likely to be in the hole. Fill the hole with wood putty several days later.

Please use these guidelines when you manage your home and yard to reduce environmental damage from pesticides. Remember, the less pesticides you use, the better for your family and the environment, now and in the future.

For more information, you can get a "Citizen's Guide to Pest Control and Pesticide Safety," (EPA730-K-95-001) by calling 1-800-490-9198 during business hours, or leave a message after hours.